

A1
cont
administering to said individual at a site on said individual's body, a DNA molecule comprising a nucleotide sequence that encodes said protein, wherein said DNA molecule is operably linked to a macrophage specific promoter and a polyadenylation signal that are functional in a macrophage cell and/or a cell of macrophage derived lineage, wherein said DNA molecule is taken up by a macrophage cell and/or a cell of macrophage derived lineage where said nucleotide sequence is expressed to produce said protein in said macrophage cell and/or said cell of macrophage derived lineage.

A2
5. (Amended) The method of claim 1 wherein said macrophage specific promoter is selected from the group consisting of a catalase promoter, a CD156 promoter, a M-CSFR promoter, a p73 promoter, and an FcγRI promoter.

9. (Amended) A method of delivering a protein to a lymphnode of an individual comprising the steps of:

- A3
- a) identifying said lymphnode that is to have protein delivered to;
 - b) locating a site on said individual's body that is proximal to said lymphnode;
 - c) administering to said individual at said site, a DNA molecule comprising a nucleotide sequence that encodes said protein, wherein said DNA molecule is operably linked to a promoter and a polyadenylation signal that are functional in a macrophage cell and/or a cell of macrophage derived lineage,

wherein said DNA molecule is taken up by a macrophage cell and/or a cell of macrophage derived lineage where said nucleotide sequence is expressed to produce said protein in said macrophage cell and/or said cell of macrophage derived lineage, and

said macrophage cell and/or said cell of macrophage derived lineage drains to said lymphnode, and delivers said protein in said lymphnode.

18. (Amended) A method of inducing an immune response against an immunogen in an individual comprising the step of:

A4
administering to said individual at a site on said individual's body, a DNA molecule comprising a nucleotide sequence that encodes said immunogen operably

linked to a macrophage specific promoter and a polyadenylation signal that are functional in macrophage cells and/or cells of macrophage derived lineages,

wherein said DNA molecule is taken up by a macrophage cell and/or a cell of macrophage derived lineage where said nucleotide sequence is expressed to produce said immunogen in said macrophage cell and/or said cell of macrophage derived lineage and an immune response mediated by said macrophage is generated against said immunogen.

AY
CND
19. (Amended) The method of claim 18 wherein said DNA molecule further comprises

a nucleotide sequence that encodes an immunomodulating protein, wherein said DNA molecule is operably linked to a promoter and a polyadenylation signal that are functional in macrophage cells and/or cells of macrophage derived lineages, and/or

a second DNA molecule is additionally administered to said site on said individual's body, said second DNA molecule comprising a nucleotide sequence that encodes an immunomodulating protein, wherein said second DNA molecule is operably linked to a promoter that is functional in macrophage cells and/or cells of macrophage derived lineages and a polyadenylation signal that is functional in macrophage cells and/or cells of macrophage derived lineages.

23. (Amended) A method of modulating an individual's immune system comprising the step of:

AS
administering to said individual at a site on said individual's body, a DNA molecule comprising a nucleotide sequence that encodes an immunomodulating protein, wherein said DNA molecule is operably linked to a macrophage specific promoter and a polyadenylation signal that are functional in a macrophage cell and/or a cell of macrophage derived lineage,

wherein said DNA molecule is taken up by a macrophage cell and/or a cell of macrophage derived lineage where said nucleotide sequence is expressed to produce said immunomodulating protein modulates said individual's immune system.

24. (Amended) The method of claim 23 wherein said DNA molecule further comprises

a nucleotide sequence that encodes an immunomodulating protein, wherein said DNA molecule is operably linked to a promoter and a polyadenylation signal that are functional in macrophage cells and/or cells of macrophage derived lineages and/or

a second DNA molecule is additionally administered to said site on said individual's body, said second DNA molecule comprising a nucleotide sequence that encodes an immunomodulating protein, wherein said second DNA molecule is operably linked to a promoter that is functional in macrophage cells and/or cells of macrophage derived lineages and a polyadenylation signal that is functional in macrophage cells and/or cells of macrophage derived lineages.

AS
cont
25. (Amended) A method of eliminating cells in a lymphnode of an individual comprising the step of:

administering to said individual at a site on said individual's body, a DNA molecule comprising a nucleotide sequence that encodes a cytotoxic protein, wherein said DNA molecule is operably linked to a promoter and a polyadenylation signal that are functional in a macrophage cell and/or a cell of macrophage derived lineage,

wherein said DNA molecule is taken up by a macrophage cells and/or a cells of macrophage derived lineage where said nucleotide sequence is expressed to produce said protein in said macrophage cells and/or said cells of macrophage derived lineage,

said macrophage cell and/or a cell of macrophage derived lineage secretes or releases said cytotoxic protein in said lymphnode eliminating cells in said lymphnode.

29. (Amended) A method of delivering a desired protein to an individual comprising the step of:

AG
administering to said individual at a site on said individual's body, a DNA molecule comprising a nucleotide sequence that encodes said desired protein, wherein said DNA molecule is operably linked to a macrophage specific promoter and a polyadenylation signal that are functional in a macrophage cell and/or a cell of macrophage derived lineage,